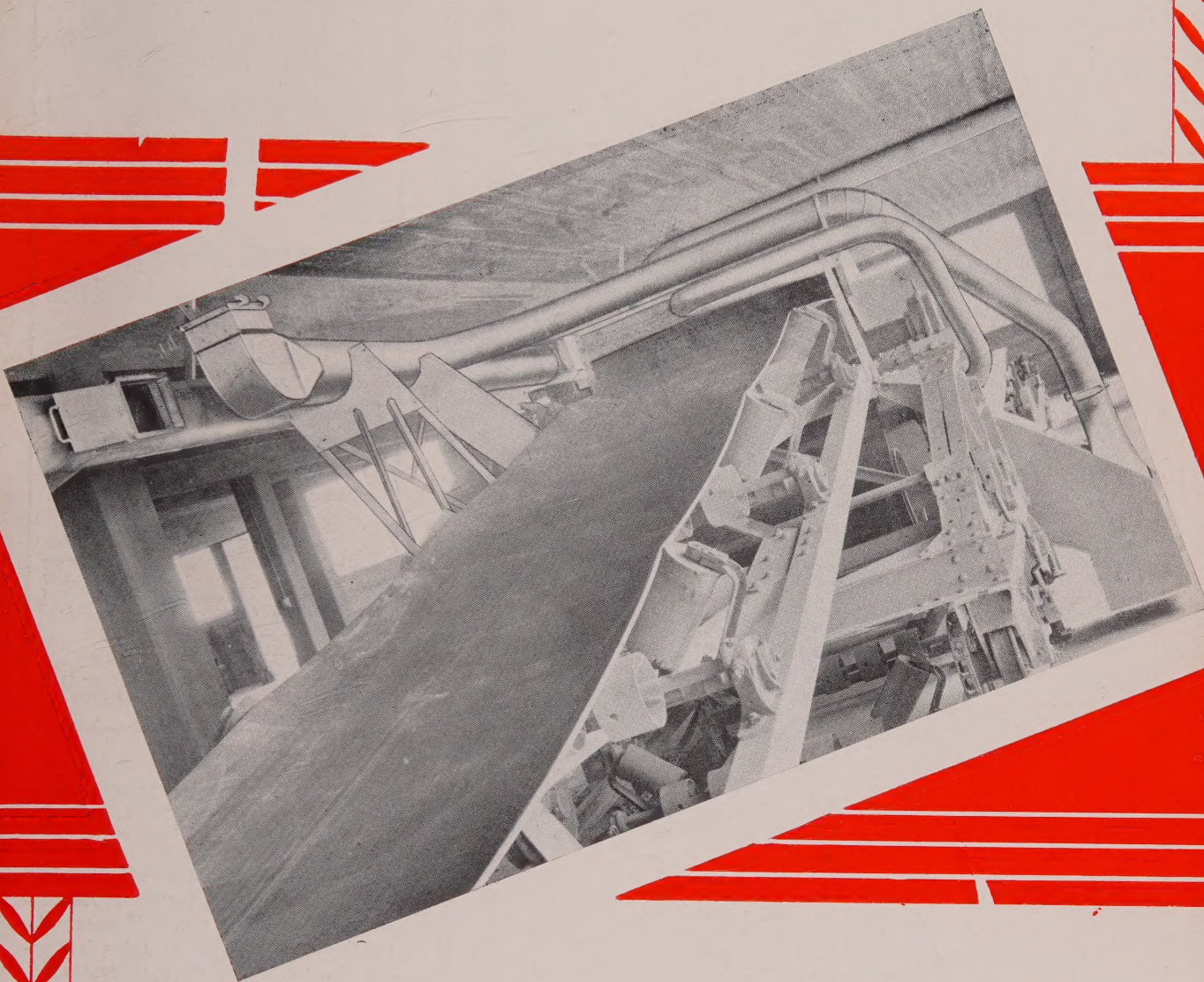


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September, 1947

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**SOGES CHAPTER MEETING
DATES**

1st TUESDAY—Minnesota SOGES
Chapter. Smith Champlin, Archer-
Daniels-Midland Co., Minneapolis,
President; James Auld, Hales & Hun-
ter Co., St. Louis Park, Secretary.

2nd TUESDAY — Omaha-Council
Bluffs SOGES Chapter. Charles F.
Walker, Archer-Daniels-Midland Co.,
Council Bluffs, President; John T.
Goetzinger, Rosenbaum Brothers,
Omaha, Secretary.

2nd FRIDAY — Central States
SOGES Chapter. M. M. Darling,
Acme-Evans Co., Indianapolis, Presi-
dent; N. R. Adkins, Purina Mills,
Lafayette, Ind., Secretary.

3rd TUESDAY — Kansas City
SOGES Chapter. Claude Darbe, Si-
monds-Shields-Theis Grain Co., Presi-
dent; Orrin E. Kinman, Cargill, Inc.,
Secretary.

3rd TUESDAY — Chicago Soges
Chapter. Leonard Danielson, Arcady
Farms Milling Co., President; Lin-
coln Scott, Corn Products Refining
Co., Argo, Secretary.

Frank Notes—

- Tribute to the grain and milling trades should be paid for the successful handling of the southwest winter wheat crop even though it is now largely history. All concerned, the inspection agencies, the Boards of Trade, the railroads, and all others who handled and transferred grain gave the greatest demonstration of complete teamwork ever seen.

- On the radio recently, Charlie McCarthy gave the following definition. "He's a perfect gentleman. He even takes his hat off in grain elevators."

- The action of the grain exchanges in complying with President Truman's "request" to impose a 33½ per cent margin on grain trading reflects the force of public opinion Mr. Truman had rallied to the food program.

- The unhappy distillers had little to say when they met with Charles Luckman of the Citizens Food Committee to discuss their 60 day shut-down. However one of them did grumble: "What is the committee going to do about the use of grain in making ice cream cones? That takes more grain than we use."

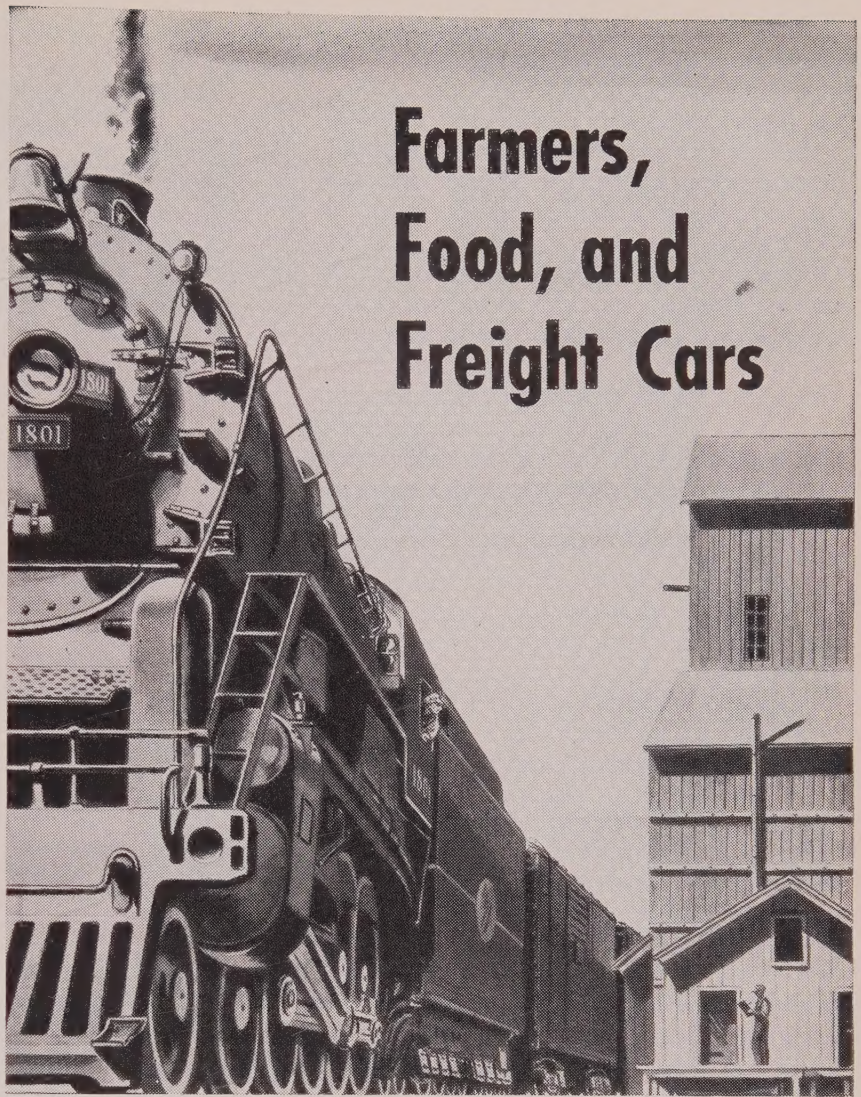
- Guess we can forget reports that the United States may print different denominations of paper money in different colors. Seems Secretary of the Treasury Snyder says that there are more color blind people in the nation than illiterates.

- We know a man who claims to have invented a cigarette-lighter which flashes an arrow pointing to the nearest man with matches.

- Four million tons of grain could be saved if farms would stop playing host to rats and grain weevils. Boarding rats costs farmers about \$500,000,000 a year. The rat problem is nation-wide. America supports 100 million rats each eating two bushels of grain a year.

- One of the 25 rules given the railroads by the union would limit the length of freight trains to 70 cars and passenger trains to 14 cars, irrespective of the pulling power of modern locomotives.

- Equipment for dust explosion demonstrations will be included in the new modern laboratory opened in Hartford, Conn., by the capital stock fire insurance companies of the Factory Insurance Assn.



Farmers, Food, and Freight Cars

- A billion bushels of winter wheat alone—besides huge crops of spring wheat and other foodstuffs! That's the American farmers' answer to the challenging needs of America and the world.

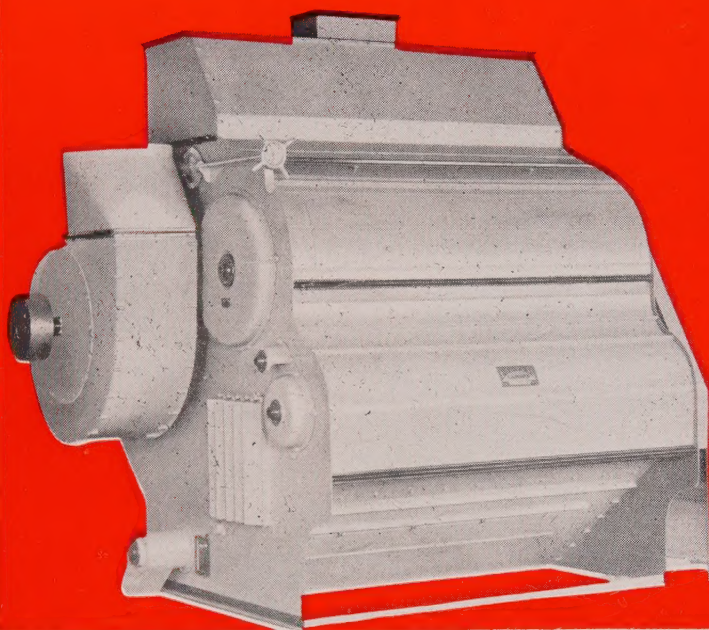
And while the farmers have done this tremendous job, the American railroads have been doing *their* part in the work of feeding and supplying the world.

The railroads have carried, so far this year, more grain than ever before in any corresponding period in history. They are hauling more tons of freight more miles than ever before in peacetime. Since V-J Day the railroads have ordered more than 160,000 new freight cars. But not enough of these cars have been delivered, so far, to replace those worn out in wartime service.

More cars are on the way. Until they arrive, however, railroads will do the best they can with what they have and can get. There are bound to be some delays in furnishing all the cars needed to move this year's crops. But the railroads—with the continued help of the shippers—will keep on doing their utmost to speed the products of our farms to the nation, and to a hungry world.

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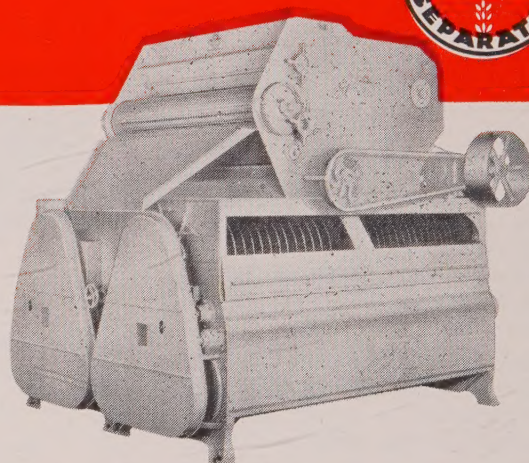


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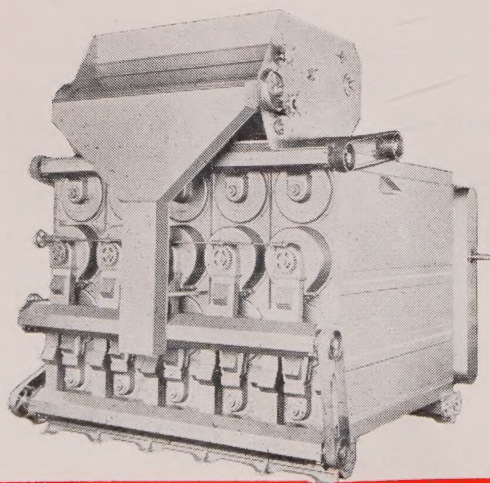
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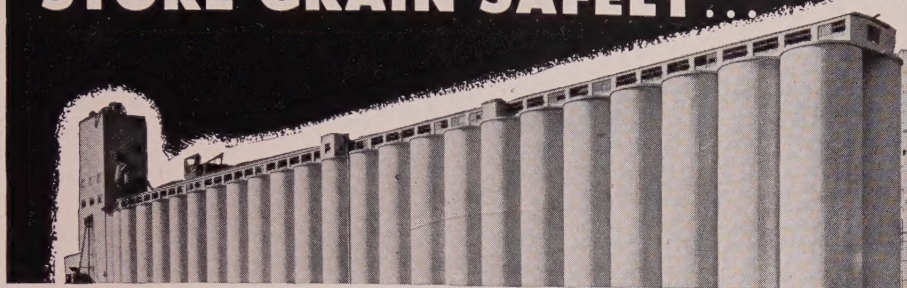
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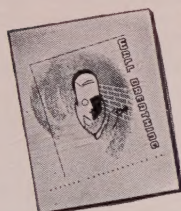
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Relationship of the Futures Market to Handling and Processing of Grain

By **RICHARD UHLMANN**, *President, Uhlmann Grain Company,
First Vice President, Chicago Board of Trade, Chicago*

**Presented Before the Society of Grain Elevator
Superintendents at Kansas City, Mo.**

You men are all experts in your field, and the industry relies on you to handle the grain when it comes in from the country, or when it has to be shipped out by carlot, by barge, or by vessel. You have had vast experience in the mixing and handling and processing of grain, and so we have to leave it solely to your judgment to see that the proper grade is established to meet the requirements of the sale.

There are times when you have your worries; there may be too much sample grade wheat in the elevator against the contract that has been sold, or the protein content may not be sufficiently high to take care of contracts on the books, so it is always necessary that we keep in close touch with you.

I have not come here to tell you what your problems and worries were during the year's time, because you know them too well, but possibly you would be interested to hear some of our worries, as the grain story from that point of view is also interesting, and has to be studied carefully.

Mother Nature Has Own Ideas

An ideal market situation would exist if exactly 1/52nd part of the world's crops was harvested each week—and if exactly 1/52nd part was marketed each week and consumed each week—and if the quality and quantity were always the same, the quantity merely increasing slowly and gradually keeping pace with the increasing population.

Likewise, it would simplify everything if the price remained the same, and if every buyer of grain, or flour, or flax paid cash for the articles which he bought. Then, of course, there would be no credit problem, no storage problem, no grading problem, and most significant of all, no price problem.

But since we do not live in an Utopia, and conditions are not so ideal, let us turn for a moment to examine realities.

The first impressive fact is that there is a complete lack of coordination between production and consump-

tion. This is particularly true of wheat, which is raised in virtually every clime, even in a place like Siberia, with its unremitting cold.

The farmer looks carefully at the price before he decides how much he will plant. If it is more profitable to put his land into corn, or into soybeans, or into flax he naturally is quick to shift, because he wants to make as much money as he can—the same as any businessman in the country. The producer is likewise influenced by weather conditions, and we have seen this spring, when it was rather cold by comparison with other years, that some of the oat acreage which could not be planted in time was diverted into other crops.

Uncertain Supplies Cause Fluctuations

These are all factors which the grain trade has to consider. The whole trouble seems to be that the world supply of grain is not produced when needed, where needed, or in the quantity needed. This makes the supply side of the market very uncertain, and thus we have market fluctuations.

If it were not for the facilities of the hedging market most of the elevator concerns and merchandisers could not deal in large quantities because the risks would be so great that many of them would be driven out of business when they guessed the market incorrectly. There are too many factors continually changing the situation, either increasing or decreasing the consumption, and it makes it hazardous to handle large quantities without the proper insurance.

For example, a failure of the corn crop might shift the demand to wheat products for feeding purposes, or conversely, a plentiful crop of corn, oats, or alfalfa might lessen the demand for bran and flour-mill offal for stock feeding purposes. The fundamental problem, therefore, of any market is to move the whole crop into consumption without a loss, without a shortage, and without an excessive carry-over.

Peculiarly enough, the price is the instrument through which markets ac-

complish this. If a market is free, open, and competitive it makes the automatic adjustment of production to consumption.

Fortune Involved Each Change

Many of you men sitting in this room are superintending the operations of large properties—some may have a capacity of 2 to 5 million bushels. The responsibilities are great, but have you ever considered what it means to the owners of these elevators in the way of financial risk when the market fluctuates?

Take, for example, a house which has the capacity to store two million bushels; every time the market fluctuates 1c per bushel either up or down it means that the net value of that grain changes to the extent of \$20,000. Thus, if it were not for the futures market it would be extremely difficult to operate without taking some terrific risks.

It is not an uncommon occurrence for the market to break as much as 10c per bushel in a single day. When that happens it means that the value of the grain stored in your elevator would decline \$200,000 in value. This is often due to various phases of seasonal demand and supply factors. For example, sunshine and rain, frost and heat, rust and insect damage are daily adding to or subtracting from the world's potential supply of grain.

These are the risks which the merchandisers or elevator men wish to insure themselves against. No merchant can afford to assume them in the normal course of business, but through a futures market they can be passed along to the speculator, who is willing to bear these economic risks.

Exchanges a Place to Sell Risks

The futures markets in this country with their hedging facilities have performed a wonderful service to the public during the past century. A good many people have misconceptions as to how they operate, failing to realize that these various markets, whether they be at Chicago, Kansas City, or Minneapolis, merely furnish a place to trade. However, in affording such accommodation they provide a means whereby those who handle grain may sell the risks of market fluctuations to others who have the capital and tem-

perament to assume them. In other words, a futures market is just as essential as fire insurance to a merchant, and certainly is as important as Lloyd's of London is to the shipping trade.

In recent years the great central markets have reached an importance in the distribution of food supplies never before attained. It was not mere accident that the Chicago Board of Trade became the world's greatest grain market. Its geographical location had much to do with it. Not only was Chicago the greatest railroad center in the world, but it also stood at the foot of Lake Michigan where commerce could be carried on with many parts of the country at a minimum of cost.

Tributary to that city is an empire of the world's best agricultural land. As much as 400 million bushels of grain have been received in Chicago in a single year. It was due to natural economic evolution that large grain warehouses and processing plants were built at that center, and one of the world's most important cash grain markets developed. The public sometimes overlooks the low cost of the Chicago market compared with the service it renders. The mechanism runs so smoothly that much is taken for granted, but in each day's trading session hundreds of problems are solved, and with practically no confusion hedgers, speculators, and millers all meet for a common purpose.

Politicians' Ignorance Hurts Farmers

I often think what a pity it is that our legislators are not more familiar with the functions of the central marketing system. I feel that if they were they would be more sympathetic with our problems, and could cooperate better toward a proper understanding of the farmers' requirements.

Few people realize the low handling cost of getting the grain from the producer to the consumer; it is lower than the cost of moving any other standard food product. This low cost is directly related to the method of handling grain on any organized Exchange, and particularly to the process of hedging on a broad and open market.

We need only go back to the days of OPA to see how insecure the grain trade was in its dealings. A year ago at this time practically all of the grain futures were at the ceiling levels, and hedging operations were almost impossible. This meant that the actual business could only be done on a hand-to-mouth basis.

Furthermore, we had a period when we reverted to the barter system, and farmers would only sell their grain if they were promised something in return which was likewise scarce. In some cases they traded corn for nylon stockings, or for birch fence posts, or for bed linen. Others resorted to black markets; we heard of incidents where candy manufacturers had to slip \$100

or \$200 under the desk of some country elevator in order to purchase grain. Thus tremendous black markets grew up.

Government Admitted Failure

The government, in order to get its wheat supplies to take care of foreign claimants, finally admitted that price control was ineffective. The CCC paid a bonus of 30c per bushel to farmers to get wheat out of hiding. This was tacit admission that price was the controlling factor, even at a time when restrictions were in full force.

I know for a period of years there have been many complaints whenever prices in this country were depressed. That happened during the era of heavy production when there was under-consumption at home, or when Europe did not have the means to buy our grain. The Grain Exchanges were always blamed, and many objectors referred to manipulations which they claimed were taking place. However, it must always be understood that the Chicago (or any other) Board of Trade, as a corporation, does no trading. It has an interest in a building in which it merely furnishes a place to trade, and as far as the members are concerned they would probably prefer high prices to low ones for the reason that the margin of profit is generally greater when prices rule high.

But here again I feel compelled to point out that markets are larger than any individual, and there has probably never been a time when any big trader could influence prices except possibly for a short period.

Even now in Canada, with the price of wheat comparatively cheap, the farmer is holding his grain off the market, and we find there is about 200

million bushels of wheat left on farms and in country elevators, which is extremely unfortunate because people in Europe are starving, and it is necessary to get the grain into commercial channels. France during the past year has attempted various experiments and, while hoping to keep the price of wheat down, the farmers have not marketed their grain but have fed this valuable wheat to hogs—and at the same time have sold the oats and barley which were not controlled. In the Argentine the price of wheat is very high insofar as export prices are concerned, but the government is paying producers so much less that there is not a normal movement to market. Since August of 1946 that country has cleared only about 32 million bushels of wheat while the United States has shipped about 300 million bushels of wheat and flour to take care of famine-stricken areas of Europe.

Last Outpost of Free Trading

Ours is practically the only country where free trading is still recognized. As a result we are going to furnish about half the wheat which the surplus nations are clearing for export. This is, indeed, evidence that free market practices accomplish the best results.

We have found that even great governments like ours have been unable to dictate price. On occasions they tried to lend support, but just as often they made mistakes in judgment, despite the fact that they had the best information at their disposal—and most competent advice was always available. When our government tried to stabilize prices during the Farm Board era, the market declined despite all measures adopted, and finally the wheat had to be sold out at a huge sacrifice.

Always Doomed to Failure

The lesson to be learned is that all such attempts by governmental agencies or commodity pools to dictate what is or what is not a fair price, according to their beliefs, will finally be doomed to failure. It is not possible for any one man or any one agency to know all the answers. Obviously it is impossible to weigh every factor in the national and international field, to judge correctly all the delicate phases of the seasonal demand and supply factors.

A well-known argument for private enterprise versus government control is that there is safety in numbers; that commodity pools and government commissions have no elasticity; that it is better to have a thousand firms engaged in any particular business, each making its own decisions, rather than to rely on the decision of a single corporate entity. While under private enterprise some individuals or individual firms might come to a wrong decision, others may come to a right decision, and the latter would be in



"Where's the fire, Buddy?"

the majority, for the very good reason that if wrong decisions are made too often, the firms or the individuals making them go out of business.

Referendum Came into Vogue Early

Now I should like to say just one more word about the Chicago Board of Trade, of which I am at the present time a vice-president. As a self-governing institution, the Board's method of law-making is very democratic. The initiative and referendum came into vogue there long before it became popular with our state governments. All rules are adopted by the members.

The rules governing futures trading after these many years of continuous growth have been amended from time to time, but have been stabilized to meet the needs of the various parties immediately concerned in grain marketings, namely, hedgers, speculators, cash grain interests, warehouse interests, bakers, as well as importers and credit interests. It would be more than a calamity if, through government operations, anything should happen to endanger any institution that has served so many millions of people so successfully.

The grain trade credit has been

mobilized and safeguarded to a very high degree of business efficiency. For this reason the banks have always loaned almost the full amount of the value of the warehouse receipts.

To those who have devoted their life's efforts to the marketing of farmers' products, the problems of recent years have been increasingly difficult. However, I still have great confidence in the future. Possibly this will be encouraging to you men who share an equal responsibility in the handling of this vast business.

Despite the many regulations that we still have, I feel certain that our government will not forever continue in business, competing with its citizens. It is certainly a wonderful record to be able to boast that in any hour of any business day, in war or in peace, in prosperity or in panic, grain could be sold on the Chicago Board of Trade at a market value which was known to all men.

SOYBEAN CONVENTION REPORT

About 500 people from 25 states, Canada and six foreign countries attended the 27th annual convention of the American Soybean Association which closed at Columbus, Ohio, September 6.

All segments of the industry, including growers, processors, grain and feed men and manufacturers of soybean products came to hear speakers from agriculture, industry and government discuss the present and future of the soybean crop.

Ersel Walley, Walley Agricultural Service, Ft. Wayne, Ind., was elected president, succeeding Walter W. McLaughlin, Decatur, Ill., and W. G. Weigle, Van Wert, Ohio, was elected vice president. Geo. M. Strayer, Hudson, Iowa, was reelected secretary-treasurer.

PLUGGING SWITCH CORRECTION

The July issue of "GRAIN" featured an article by Ray J. O'Leary giving the Corn Products Refining Company's version of their installation of a special switch to cut power in the event of a choke.

Recent changes have been made to conform to Class 2—Group G standards; so instead of ordering General Electric's Plugging Switch No. CR2962, we wish to advise that the accepted switch is G-E Standard Plugging Switch No. 2962-A-2-D with special aluminum case.

Both Mr. O'Leary and Mr. Wilber, A. E. Staley Manufacturing Co., Decatur, Ill., called our attention to the new number. Superintendent Wilber wrote that the approved switch is also being used on automatic shut-off for standard shovel machines in the event a leg is endangered.

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CONDITION OF RAILROAD BOX-CARS

A veteran mill traffic man tells us that while he does not ever recall a greater degree of tolerance and sympathetic understanding upon the part of the shipping and traveling public toward the railroads, nevertheless he feels strongly that the carriers are imposing terribly upon shippers by the quality of service currently rendered. When, if ever, he asks, are the railroads going to do something real about the supply of freight cars and, equally as important, when are they going to do something about the condition of cars supplied to shippers for loading? He continues:

"The physical condition of boxcars is terrible. Many of them cannot be used for loading any of our commodities. Grain doors have been used to patch floors of cars used for carrying bulk grain. I noticed a car the other day in which holes had been plugged with paper. When I put my hand against the car while looking into the doorway, the wood crumbled. Even the few cars that can be put into condition with a minimum amount of work on the part of the carriers are still coming through untouched. Greasy and oily spots, spikes, wood blocks, ragged interiors, rough floors, and numerous other conditions that railroads could take care of have been ignored completely.

"They have equipment to do the work but they have been getting by with the plea of shortage of help. In the past we averaged 15 to 18 pounds of lining paper to put a car in tiptop condition for loading flour, but today we average 40 pounds of carlining paper, plus a considerable amount of cardboard and waterproof paper to put a boxcar in a 'take-a-chance' condition. The worst of it is that while there has been no improvement in the condition of boxcars, the attitude of those who are in charge locally has likewise not been improved."

What this shipper reports is undoubtedly an accurate summary of the condition which prevails generally. The only remedy we know for this condition is for all shippers just to pound away against the carriers, in the hope that eventually even the hardest stone will be worn down by the drops of water.

The job of making complaints to the carriers on the general condition of boxcars is one on which traffic managers ought to have the active and vigorous assistance of milling company presidents and general managers. Pointed letters, telegrams and phone calls ought to be sent from time to time to railroad presidents by the top men in this and other industries which are heavy shippers. There seems to be no other way to obtain relief.—Millers' National Federation.

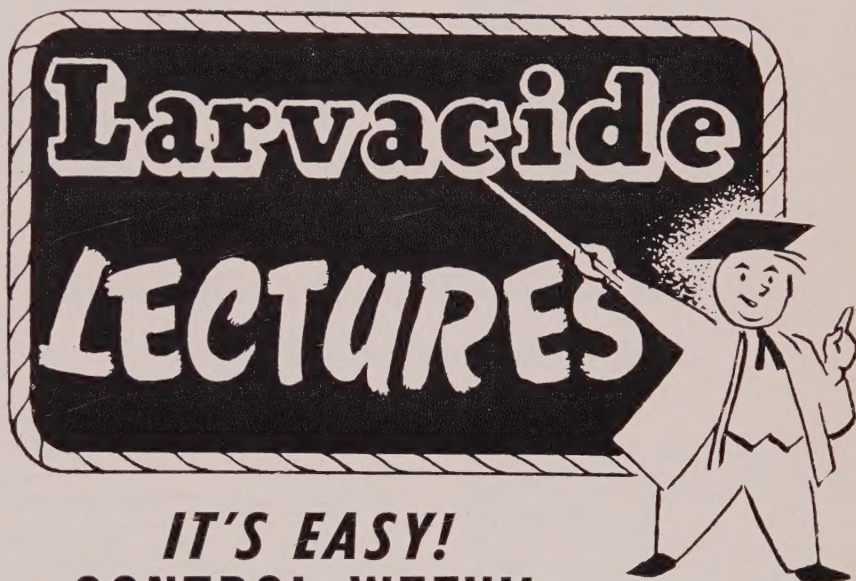
CHICAGO—FOOD CAPITAL OF WORLD

Grain traders used to think of the government once a month when the crop report came out. Now they spend most of their time analyzing foreign affairs and wondering how each event will react on the men in Washington who are ordering food for Europe. This enforced study of international affairs has reversed the trend toward decentralization of grain marketing; in becoming the grain capital of the world, Chicago has strengthened its

position as the nation No. 1 grain distributor.

The decisions made at either end of the Chicago-Washington pipeline affect the food commerce of many nations and the grain men of the entire Central West look to Chicago for an interpretation of their international position.

As a grain capital, Chicago is the largest receiver of corn, oats and soybeans. It ranks only behind the great elevator cities of Minneapolis and Kansas City in wheat, and a great part of the grain processing business is in land tributary to Chicago.



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Your grain treatment will also do a lot to discharge rodents and keep them out of the premises. Used for rodent fumigation LARVACIDE makes sweeping rodent kills and drives rats out into the open to die on the floor—eliminating carcass nuisance. Comes in cylinders 25-180 lbs. or 1 lb. Dispenser Bottles, each in sealed can.

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Soybean Round Table Discussion

You can store No. 2 soybeans up to 13.5% moisture and usually be rather safe, the SOGES Convention Soybean Roundtable reported. If you have high damage they should not be stored over 12.5% moisture.

The operation differs a great deal in our plants. Some have the solvent process and others have the expeller process. These two operations are very much different and consequently the beans have to be handled much different.

Soybeans processed by solvent process can be used up to 13.5% moisture, but with the expeller process they have to be down to 3.0 to 5% moisture. The moisture for the expeller process does not all have to be taken off in the elevator departments, to wit, most elevators were delivering beans to the expeller plants at

10.0% to 12.0% moisture. The rest of the moisture is taken off in the expeller plant after the beans are cracked. This is done by steam driers.

We all agreed that beans should be uniform moisture to the processing plant (Solvent or Expeller), except Henry Green from Pillsbury Mills, Clinton, Iowa. He said that they could blend beans of different moisture and process them immediately—if he didn't use any 14.0% moisture—in their solvent plant.

130° F. Maximum Drying Temperature

Beans are a lot like corn when it comes to drying. The heat should not be too high—130° F. temperature of beans maximum—and lower if possible. High heat in drying makes "break" in oil high.

The French expellers, with water cooled jackets, should use soft water, it was agreed. Hard water causes lime to deposit on them.

Soybeans are very severe in wearing out spouts. One-fourth inch plate glass is being used successfully at Glidden Company in Chicago. The glass is glued into the spouts. Glass cannot be used, however, in leg heads and places where flying pieces of stones or iron will break it. Live rubber spout lining is best for leg heads and similar installations.

Rubber will outlast steel five-to-one. Rubber can be bolted in with elevator bolts. Stainless steel has been used successfully in some plants.

Howard E. Habegger
Roundtable Secretary
McMillen Feed Mills, Inc.
Marion, Ohio

World Conference Told of Grain Losses From Insects and Fungi

Insects and fungi are making heavy inroads upon the world's grain supplies, two specialists of the USDA reported to the technical meeting of experts on losses of food in storage, being held by the United Nations Food and Agriculture Organization in London. Both of the specialists outlined preventive measures which should be encouraged to reduce the present losses.

Dr. R. T. Cotton, Department expert on cereal insects damaging stored grain, told the conference that conservative estimates indicate that after harvest insects ruin 5 percent of the cereal foods produced throughout the world. Insect losses in stored grains could be largely avoided, according to Dr. Cotton, by the use of well-known methods and better storage facilities. Immediate and widespread dissemination of proper information to those concerned with the problem of grain storage should be accomplished without delay, he said.

New methods to aid in the control of insects which ruin stored grain have been developed within the past three years by the Bureau of Entomology and Plant Quarantine. These include the use of residual-type spray applications of DDT to empty wooden farm storage bins and storage places. These DDT residues continue over long periods of time, to kill insects infesting such bins. The treatment of seed grains with a dust containing about 1 percent of DDT or with non-poisonous dusts such as magnesium oxide, kills the insects and helps to

insure a supply of good seed for planting.

Fungi Ruins More; Causes Heating

Dr. A. G. Johnson, cereal pathologist of the Department estimates that depredations of fungi account for an annual overall loss of approximately one percent of the world's grain crop.

Studies show that losses from fungi take place chiefly in humid regions with relatively high temperatures following harvesting and threshing and in the spring. Heaviest losses are in wheat and corn.

The fungus spores are on or in the seed when it is threshed and go with the grain in storage. They germinate and grow when the grain moisture is high and the air temperature is relatively warm. Recent studies have demonstrated that the activity of the fungi is the principal cause of the heating of moist grain.

Attacking the grain by means of enzymes, the fungi cause marked deterioration in quality. The broken kernels are most easily attacked. Excessive heating makes the grain unfit for food, feed, or seed but usually it may be used for certain industrial purposes.

Safeguards against excessive moisture from rain leaks and snow and prompt drying of moist grain will cut down losses from fungi. Sealed storage of very dry grain may be desirable in some cases. The best protection against fungi, however, is to keep the grain dry and as cool as reasonably possible.

Woodworth Urges Grain Export Review

Because the American program of grain exports was formulated earlier in the year "when corn crop prospects were more promising," Chairman R. C. Woodworth of the National Grain Trade Council, has again written President Truman, recommending a "conference of all interested parties" to review our export program "in light of the crop developments subsequent to our letter of July 24." Mr. Woodworth has favored an early conference where the public at large could obtain a clear idea of the effect of grain exports upon the domestic supply for the coming year.

John R. Steelman, assistant to the President, recently wrote Mr. Woodworth assuring him that the Council could be most helpful "in the event that it becomes necessary to take special measures to conserve grain." Mr. Steelman had written under date of August 1 and expressed the hope that crop developments after that date would make it unnecessary to ask "for further restrictions." But since August 1 the general crop condition has deteriorated and many in the trade have felt that the export program should be reviewed in the light of a new inventory of our grain supplies.

Mr. Woodworth is urging that this inventory be made as early as possible and that a conference of "all interested parties" be called to measure our ability to export at a rate announced earlier this year. The public, he holds, must fully know our domestic supply situation for the year, and realize any sacrifices that it may be asked to make to maintain the export rate.

INCREASED COST OF GOVERNMENT

Here are some facts about the increase in the cost of government in the United States in recent years, which tell such a story that additional comment is superfluous:

In 1935 the number of federal agencies, bureaus and departments was 190; in 1947 this total had risen to 1,141.

The number of civilian employes of the federal government in 1935 was 719,440; twelve years later the number was 2,102,000. These totals exclude all military personnel.

The annual payroll of the federal government in 1935 was \$1,361,000,000; this payroll total had mounted in 1947 to \$6,156,000,000.

The cost of government was \$31 in 1929 for every man, woman and child in the United States. For the present year this cost is estimated to be \$310 per person, an increase in less than two decades of exactly nine hundred per cent.

Everybody is talking a lot nowadays about the increased cost of food. This has gone up from \$162 per person in 1929 to \$302 per person in 1947—an increase of 86 per cent. During this same time, the cost of government increased 900 per cent.—Millers' National Federation.

RESEARCH IN STORED GRAIN INFESTATION

Dr. R. B. Cotton, senior entomologist of the Bureau of Entomology and Plant Quarantine, USDA, will have immediate supervision of a research project to be conducted on a commercial scale to develop, test and demonstrate the application of insect control methods to stored grain. Insects cause an estimated annual loss of nearly 400 million dollars to grains in storage and transit or while grain is being milled and marketed. These losses are due to insect pests that breed in the grains and persist in cracks and crevices of farm bins, freight cars, and warehouses from which they gain access to the seed, grain or grain products.

The Grain Advisory Committee agreed that this research to reduce or eliminate these losses should be undertaken at an early date and recommended attention be given to the prompt control of insect infestation in the stored grain.

WHEAT AREA GOAL

The USDA announced a national wheat goal of 75,095,000 acres for 1948. This is approximately 4 million acres more than the 1947 goal, but about the same as the 1947 indicated plantings; however the 1947 harvest revealed an acreage of nearly 75 million acres.

EMERGENCY CORN DRYING PROJECT

The U. S. Department of Agriculture's emergency corn drying project, first announced Aug. 1, is well under way. Four USDA bureaus are correlating their efforts, in cooperation with experiment stations in corn belt states. The Department's research engineers, working with state officials, discussed requirements for corn drying equipment with manufacturers at Purdue University and purchased a few driers which meet specifications for demonstration purposes.

HEDGING SWITCH

Grain traders and processors wonder if Secretary of Agriculture Anderson ever reads pamphlets issued by his department. In technical bulletin No. 934, which was issued in August, it is pointed out that the ability to hedge in grain markets permits elevator operators and other commercial handlers to assess a very low markup and that therefore the grain trade gets a very small slice of the consumer's dollar.

The trade points out that this low markup may be forced upwards considerably, along with prices themselves, by Mr. Anderson's and the administration's insistence on higher margins for futures transactions.

The margins may eliminate or so greatly reduce speculative trading that handlers can find insufficient hedges to insure their positions and hence to be unable to continue their fine record of low markups, as cited by the department in bulletin No. 934.

GRAIN—FOOD FOR HUMAN OR ANIMAL FEED

The Millers' National Federation in its report to government agencies entitled "Flour Exports and Emergency Food Problems" brought some interesting nutritive value data to the attention of the agencies.

The animal is a notoriously poor converter and hence expensive converter of grain into food. Seldom does any animal return food in excess of 33% of the grain consumed. It takes seven times as much grain to feed a man via the animal route compared to feeding him the cereal direct or putting it another way, seven times as many people can be fed by one ton of grain as a cereal instead of via the animal route. It simply means that by shipping more wheat and less flour for relief, thereby encouraging the feeding of animals, six more people are likely to starve for every one that is fed through the animal route.

MALTING BARLEYS RESEARCH

Cereal scientists of the USDA will seek improved methods for malting barley, and especially for satisfactory utilization of barleys not commonly used for malting purposes, in a project approved under the Research and Marketing Act of 1946. Barleys of satisfactory malting quality adapted for growing in the North Central states have been severely damaged by diseases in recent years, and it has been necessary to use less satisfactory barleys from other areas.

Center of the project will be a research laboratory with pilot plant facilities to be built on the University of Wisconsin campus at Madison, but equipped to serve all barley producing areas and the malting industry for the entire country. Here scientists will investigate the inherent malting quality of various types of barley from many sources, including all new varieties released for production. They will also study the influence of environment on quality, and the relation of certain types of enzymes or ferments in barley to its malting quality.

Long range objectives of this fundamental research are threefold: (1) To provide information on high quality malting barleys that will assist the producer in selecting varieties to grow; (2) to develop improved techniques for the malting of barleys of different types and origins; and (3) to supply a basis for trade standards and other aids to the marketing of malting barleys.

The research will be done by the Bureau of Plant Industry, Soils, and Agricultural Engineering in cooperation with the Production and Marketing Administration, state experiment stations in barley growing areas, and trade groups. The project will be in charge of the Bureau's Division of Cereal Crops, headed by K. S. Quisenberry.



"Let's throw him back so we can have the fun of catching him again."



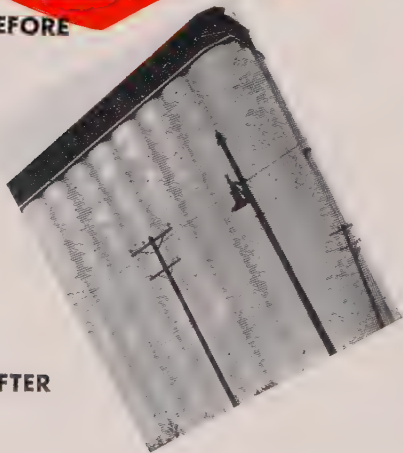
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Whether You Believe In It or Not

Satan Static

Is Looking For New "Customers"

Thinks H. B. Willeford, Consulting Engineer,
Marsh & McLennan, Minneapolis



DO IT THE SAFE WAY

When working with a grain shovel watch that loop in the cord. Keep your foot out of it. (*The Staley Journal*)

After discussing the subject of "Static Hazards in the Grain Industry" on several occasions before the local Superintendents chapter and at one of your national meetings, I have come to the conclusion there is some doubt in the minds of your membership as to whether or not Static Electricity can cause a dust explosion.

I do not claim to be an expert on Static Electricity but I do have the urge to spread the gospel of fire and explosion prevention and, therefore, I give you the benefit of my experience over a period of years in this work.

I am basing my conclusions on the research and subject matter furnished by such well-known authorities as the National Fire Protection Association, Underwriters' Laboratories, Inc., Mutual Fire Prevention Bureau and our national government bureaus dealing with this subject. There seems to be but one conclusion, viz., practically every manufacturing plant with moving machinery or processing materials is concerned with the hazards of Static Electricity.

If it is allowed to accumulate on insulated materials or equipment, it will eventually discharge to grounded objects with a spark of sufficient intensity to ignite combustible materials—and with critical mixture of air and combustible dust or explosive gases to cause an explosion.

Explosion Loss Over \$42,000,000

A record of the dust explosions in grain elevators in the United States alone from April, 1898, to April, 1946, compiled by the National Fire Protection Association, shows a total of one hundred seventy-seven explosions. Seventy of these explosions involved personal injury or loss of life. There were one hundred and twenty-three people killed and three hundred and twenty-six injured, with a property loss of approximately forty-two million dollars.

Eighty-three of the explosions were listed as "cause unknown." A substantial number of these could be easily attributed to Static Electricity as it is difficult to find the cause after the explosion occurs. To prove this claim, any employee around a grain handling plant will tell you that on dry days he sees static discharges from belts and machines—but nothing happens. It is just fortunate the mixture of dust and air was not in the "critical range" for an explosion.

The National Fire Protection Association estimates losses from fires caused by static generated by belts and pulleys in all factories at three million dollars per year. A constant risk is presented in at least 50,000 industrial plants by the presence of dust and static in large quantities and this is especially true in grain handling and processing plants and in cotton gins.

Is Electricity Standing Still—But Going Places

Static Electricity in the narrow sense of the word means electricity standing still. Strictly speaking, when we become aware of it, it is no longer static but is going places in a hurry. Static is often referred to as being mysterious, but it is the same kind of electricity which you deal with every day—perhaps much less current, but otherwise the same.

It requires about twenty thousand volts to produce a one-inch spark, but after the air is ionized and a path established it will jump much farther. A person may store up to ten thousand volts by walking across a room covered with a thick rug. Trucks and busses commonly build up forty thousand volts or more, and industrial belts and pulleys have produced five foot sparks, indicating voltages of more than a million volts—as quoted by Mr. Paul W. Kearney in an article in *National Safety News*. Elevator cups scooping up grain in the pit generate static from the friction.

It has been estimated that a static spark has a temperature of around 7000 degrees Fahrenheit, but due to the short duration of one discharge it does not bring surrounding material up to kindling temperature. However, with a continued discharge through combustible material it will eventually bring it up to burning temperature—and you have a fire.

A good example of this is that you can disconnect the wire on your spark plug and hold a piece of paper between the wire and the plug. The spark will pass through the paper but will not set it on fire; but that same spark will explode the combustible gas in the cylinder as it will heat up the small particles to the burning temperature. This will also apply to small particles of dust.

Alger Cites Eyewitnessed Case

Chester J. Alger of Corn Products Refining Co., before National Safety Committee Meeting in Chicago, cited: "One of the insurance inspection bureaus in Chicago has on record a small fire in a grain elevator. Dust was permitted to accumulate on the top of an automatic sprinkler line which passed less than one foot under a fast moving horizontal transmission belt. The Static Electricity built up sufficient voltage to discharge to sprinkler line, igniting the dust, and flash burned for some time. The

whole performance was witnessed by a workman in the plant."

F. B. Silsbee, Chief Electrical Instruments Section, National Bureau of Standards, before a meeting of the International Association of Electrical Inspectors made the following statement: "I have gone through my file in the National Bureau of Standards and jotted down the names of a few of the industries and types of activity which have been bothered enough by Static Electricity to take the trouble to write Uncle Sam for advice and suggestions. This list begins with aircraft. Going down the list we find balloons next. There are letters from people in the delivery of gasoline, in grain elevators, gunpowder factories, rayon factories,

thrashing machine operators in the state of Washington and a toll-bridge operator in Florida."

Farm machinery can make trouble, too. During World War I there were approximately three hundred fires attributed to static around threshing machines in the Pacific Northwest.

Grounding Rolls Prevented Fires

Several small fires have occurred in grinding rolls, especially in the last set before ground material was discharged. Grounding of these rolls stopped the fires.

On the West Coast there was an epidemic of explosions in feed grinders. One company became desperate to find the cause of these explosions. They finally cut windows in the



DO IT THE SAFE WAY

This man has his foot in the loop which will close quickly and probably catch him as it does so. (*The Staley Journal*)

grinder case and found that a continuous discharge of static was taking place in the grinders. The entire equipment was grounded and no further trouble occurred.

Hospitals take elaborate precautions against static in operating rooms—for anesthetic vapors are highly explosive.

Static is common in running automobiles. The dirigible "Hindenburg" was destroyed at Lakehurst, when static exploded its hydrogen.

Such incidents make static something more than an amusing experiment in high school physics, for it is the cause of many hundreds of deaths and many millions of dollars in damage every year.

You men connected with the grain industry will have to admit you have the mixture of combustible dust and air in your plants. And considering that it has been established that Static Electricity is developed in industrial plants and that it can ignite dust, the next question is: What are we going to do about it?

The \$64 Question

Coming to the matter of remedies there are numerous methods of disposing of static in industrial plants as a whole. The principal remedy, of course, is grounding.

Where the equipment consists of a

number of metallic parts insulated from each other electrically by non-conductors, it is generally desirable to connect all metallic parts with heavy copper wire and ground the system with one common ground wire.

To carry off the static charge as fast as it is produced only a very small amount of current and only a very small amount of conductance is required. Usually this same grounding wire may well serve as a protection to the operator against electric shock in case of defective installation—and out of doors these may serve to carry lighting currents.

For both of these reasons and also for the reason that we want a grounding wire which is solid, one not easily broken, it is good practice to use size wire as recommended by the National Electrical Code. But you don't need it for the sake of static. The finest wire you could draw would be much more than needed.

Where you have moving metallic objects insulated from ground it presents other problems, especially buckets on elevating belts and shafting on wooden mounted bearings. The question of bonding all of the buckets by means of copper strips or flexible cables has been discussed at previous meetings of this group and it was the consensus that this was impractical. It would appear that the non-spark belting is the best answer.

Just before the war these belts were available for about 10% higher cost than the belting commonly used. I cannot see any reason why these belts should not have a trial as no doubt there will be a great many replacements in the near future.

Static from transmission belts can be largely eliminated by chain drive or "V" belts and direct connected power units.

In reviewing this problem we must bear in mind that we are dealing with dust laden air which may be explosive if a source of ignition is present, and that every effort should be made to eliminate the possibility of building up a heavy charge of static—at least bond and ground that equipment that is a simple matter and use our ingenuity in working out the more complex problems.

I have been informed by some of the grain men that with few exceptions the method of handling grain has not changed materially in the past fifty years. Maybe the answer is eliminate fast moving belts and eliminate dusty conditions by enclosing all means of grain movement. This is in the form of a challenge.

For specific details regarding grounding of grain handling equipment I would refer interested parties to the National Fire Protection Association Bulletin on Static Electricity.

GRAIN STORAGE RESEARCH

The Grain Advisory Committee in submitting its report and recommendations to the USDA stressed the need for research that will reduce or eliminate the loss of grain in storage. The committee pointed out that grain production has grown beyond the knowledge of safe storage practices and presented corrective suggestions. First, to design suitable structures for both farm and elevator storage. Second, to improve and develop facilities for drying and conditioning grain and for the control of insect infestation. Third, to make economic studies to determine the costs and the returns or profits the producer might expect from the installations of such facilities.

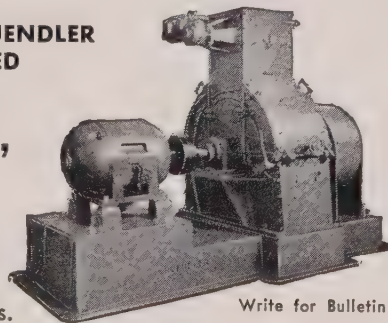
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The new and improved patented features of the "ARISTOCRAT", so outstanding, have won the approval of the Commercial Feed Millers,—over one hundred of the large 150 H.P. "Aristocrat Units" have been installed in Commercial Feed Plants in the past two years.

For large production and fine uniform grinding of all free flowing grain and for the regrinding of dehydrated or sun-cured alfalfa you will find the Aristocrat Grinder your choice.

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mean that it is not good.
But it doesn't stand to reason
that it would be as
good as an advertised item.
And just because an item
IS advertised in GRAIN is
pretty good evidence that
it's the best in its line . . .
Think it over!*

Fire Underwriters Issue Warning

Because fires in grain, cereal and flour mills, stock food factories, grain elevators and warehouses increased 50 per cent during the last year, the National Board of Fire Underwriters is issuing a special warning to fire departments and all concerned with the handling of grain to maintain increasing vigilance against the peril of fire.

The National Board points out that four fires alone in grain elevators and mills late in 1946 and early this year each destroyed several million bushels of grain and caused losses of from one to three million dollars.

"With emergency relief demand of 100,000,000 bushels of grain for the starving people of warswept areas, and the need for maintaining a fairly normal supply for the people of the United States, immediate action to prevent destruction by fire of grain and grain products becomes of vital importance to those on whom the responsibility of providing fire prevention and fire protection falls," the National Board's bulletin says.

"It is essential that all establishments storing, handling and processing grain and grain products should be vitally interested in a self-inspection service, involving not only a periodic checkup, weekly, but entailing constant vigilance of those conditions most apt to cause fires."

"Further, and more important than the causes of fires are the conditions which let a fire involve a whole structure through the upward or horizontal sweep of flames and heated products of combustion.

"Industries involving the handling of grain generally produce the hazard of grain dust explosions. Cleanliness is usually the best cure for this.

"Grain handling often requires high or large buildings. Structural changes,

cut-offs by walls and fire doors, the enclosure of vertical fire-travel and the installation of automatic fire detection and of automatic sprinkler systems are all of value."

The National Board's bulletin urges fire departments to make a survey of areas in their jurisdiction to determine which plants, stores or other places involve the storage, handling or processing of grain, to encourage self-inspection on the part of these plants, to make inspections by members of the fire department, and to encourage civic organizations to work for improvement of hazardous conditions.

Self-inspection blanks to assist managements in checking up on their plants, stores, elevators or other places handling grain are being sent to all fire departments in the U. S. These may be obtained also at the National Board of Fire Underwriters, 85 John Street, New York 7.

STORED SOYBEANS HOLD OIL

Research by the USDA on the oil content of soybeans in storage shows that no oil is lost from beans during their storage prior to processing—contrary to the commonly held belief that such oil content diminishes during storage. Research in this matter was reported by Dr. G. E. Hilbert, director of the Bureau of Agricultural and Industrial Chemistry's Northern Regional Research Laboratory at Peoria, Ill.

HONOR STALEY

The A. E. Staley Manufacturing Co., Decatur, Ill., was recently presented with a bronze plaque by the Decatur Association of Commerce at the All-Illinois Agricultural Conference. The honor was given in recognition of Staley's twenty-five years of soybean processing.

*If you can catch
a leprechaun...*



A leprechaun, according to Irish legend, is a dwarf who keeps a pot of gold hidden away.

If you can catch a leprechaun, your troubles are over.

Because he keeps his gold just for ransom money. If you catch him, he'll quickly tell you where his gold is, so you'll let him go.

The best place to look for a leprechaun is in the woods. They're green, and only about nine inches tall, so you'll have to—

Or maybe you don't believe in leprechauns.

Maybe it would be more practical to just keep working for your money. But you can learn one good lesson from

these little fellows.

A small pot of gold put to one side is a great help when trouble catches you.

And there's a much faster and easier way to get your pot of gold than by catching leprechauns. You can buy U. S. Savings Bonds through an automatic purchase plan.

If you're employed you can sign up for the Payroll Savings Plan. If you have a bank account you can sign up for the Bond-A-Month Plan. Either way, your pot of gold just saves itself, painlessly and automatically.

And your money increases one third every ten years. That would make a leprechaun turn even greener with envy.

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NATIONAL TO ADD 2,000,000

Two million bu. storage capacity is being added by the National Milling Division of National Biscuit Company at its Toledo plant. This will bring total capacity to 6,400,000 bu. Peyton A. Kier is Manager and Stephan A. Molnar is Elevator Superintendent. Cost is placed at \$600,000.

\$17,000,000 WORTH FOR GFC

An expenditure of over \$17,000,000 for plant construction, modernization, and equipment is announced by General Foods Corporation, cereal, flour and feed manufacturers.

SWIFT UNIT COMPLETED

The new Swift & Co. soybean processing plant erected in Frankfort, Ind., was dedicated on June 20. In addition to the 1,000,000 bu elevator there are two main processing units, including a five story extraction plant and a three-story bean preparation and meal conditioning structure. Sam Hollet is manager and A. J. Sibley is plant superintendent.



IT'S THE
Curve
THAT
COUNTS!

There's no "parting of the ways" while traveling up the up-leg . . . no backlegging when grain is elevated with the

CALUMET Super Capacity Elevator CUP

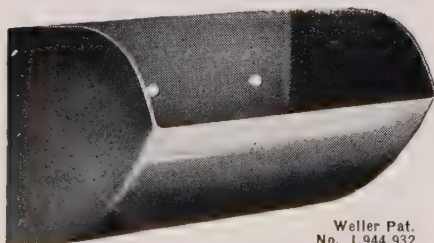
The patented *Logarithmic Curve* design keeps grain securely hugging the cup until it reaches proper point of discharge.

Made of heavier gauge steel of one piece welded construction . . . no rivets, bands or overlaps. Permits closer spacing on belt. Makes faster belt speeds possible. Provides greater load and elevating capacity.

ASK YOUR JOBBER . . .
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No. 1,944,932

CAR DUMPER FOR OMAHA

Udike Grain Corp. will have an automatic car dumper installed in its 2,750,000 bu C&NW terminal at Council Bluffs just as soon as the equipment is delivered. This will be the second such installation announced for this market of late. In addition to the \$200,000 expenditure to speed up car unloading, the owning railroad also will install a \$30,000 grain drier in the plant.

FIVE NEW REFINING PLANTS

Five new "cold fractionation" refining process plants are planned by the M. W. Kellogg Co. of New York, Pullman-Standard Car Mfg. Co. subsidiary. The new refining process, through which vegetable and animal oils can be separated from a variety of products, uses propane as a solvent. It is designed to produce oils for food, fats for soap, fast drying oils for paint, and a number of different vitamins.

The Suspense Is Awful!

He grabbed me by my slender neck.
I could not yell nor scream.
He took me to his dingy room
Where he could not be seen.
He tore away my flimsy wrap
And gazed upon my form,
For I was very cold and damp
While he was awful warm.
His frenzied lips he pressed to mine.
I gave him every drop.
He drained me of my very self.
I could not make him stop.
He made me what I am today,
That's why you'll find me here,
A broken bottle thrown away
That once was filled with beer.
—M. Sammons.

PILLSBURY TO ADD

Pillsbury Mills, Inc., will invest nearly \$1,000,000 in plant additions and improvements in its Springfield, Ill., properties, the first part of a large program of expansion here.

ALLIED MILLS TO EXPAND

Allied Mills, Inc., will invest over \$1,000,000 in the construction of a new modern feed manufacturing plant on a recently acquired 30.5 acre tract in East St. Louis, Ill., not far removed from its present facilities.

NEW \$1,000,000 PLANT

To build a plant at an estimated cost of \$1,000,000 to produce wheat gluten, the Wheat Products Co. has been formed at Jefferson City, Mo. The International Minerals & Chemical Corp. of Chicago, which is contracting for the entire output, has acquired a half interest in the new project.

How Johnny Learned It

Johnny was not at the dinner table when his father came home, for his mother had sent him upstairs to bed for swearing.

"Swearing?" bellowed the father. "I'll teach him to swear!" He dashed up the stairs and midway, stubbed his toe, stumbled and crashed his chin on the step.

When the atmosphere cleared a little, Johnny's mother said sweetly, "No more now, dear. You've given him enough for one lesson."



BALANCED

- ✓ ORGANIZATION
- ✓ SKILL
- ✓ EXPERIENCE

FOR

Efficient mechanical installations, efficient reconversion change, efficient maintenance service.

All require the services of a balanced unit of specialized engineers and experienced mechanics. Let us, with our complete organization, take out confusion in your plant and skillfully do a man-saving, time-saving, cost-saving job for you.

THE INDUSTRIAL ERECTORS, INC. ENGINEERS AND MACHINERY ERECTORS

1316 WEST CERMAK ROAD

CHICAGO 8, ILLINOIS

ALL PHONES: SEELEY 1677

STALEY PROMISES TOP RATE PAY

The A. E. Staley Manufacturing Co., Decatur, Ill., issued a statement of policy to its employees and stockholders to enable them to understand the principles on which the company is managed. The corn and soybean processing firm defined the old phrase "a fair day's work" as meaning workmanlike completion of assigned tasks by an employee possessing the ability to perform such tasks, and will reward them with a "fair day's pay." The company pledged itself to pay wages equal or above those paid for similar work in its community or prevalent in its industry.

GANO BUILDING ELEVATOR

A new 350,000 bushel elevator is being erected 16 miles north of Garden City, Kansas, by George E. Gano who recently sold his Hutchinson elevators to the Bunge Corporation. The new elevator, plus the Horace, Kansas, elevator will provide a 600,000 bushel capacity for storage of Mr. Gano's wheat grown on his own farms.

CAR SHORTAGE BLOCKS ELEVATORS

The number of blocked elevators in Minnesota, Montana and the Dakotas increased to about 1500 early this month due to the shortage of box cars. Truckers trying to relieve the blocked houses have been halted by the railroads on a charge of trespassing, but many elevators have installed spouting extending over the railroad tracks.

ELECTRIC REOPENED BY CARGILL

Cargill, Inc., due to an increase of grain traffic through Buffalo, has reopened its Electric Elevator which has a capacity of 7½ million bushels. The plant, largest in Buffalo, was shut down for a month because of receding grain movement. CCC's 20 million bushels of grain now at the head of the lakes ready to be moved was the main factor responsible for the elevator's resumption of activities.

ST. CLAIR ELEVATOR COMPLETED

A new grain elevator equipped with modern machinery, including high-speed loading and handling equipment nears final completion at Tilbury, Ont. Built by the St. Clair Grain & Feeds, Ltd., the new structure will be used to handle soybeans.

A-D-M EXPANDS IN TEXAS

As part of the Archer-Daniels-Midland Co.'s expansion program, construction will start immediately on a million-dollar flaxseed processing plant at Kenedy, Texas, and capacity of the existing Kenedy elevator will be increased by 500,000 bushels.

SENTENCED TO FEDERAL PRISON

Robert E. Griffin, grain dealer of Frisco, Texas, received a sentence to serve two years in federal prison for the theft of approximately 60,000 bushels of wheat owned by Commodity Credit Corp. The wheat formerly was stored in the elevator Griffin operated at Frisco.

GENERAL MILLS EXPANSION

As part of its multi-million dollar post-war expansion program, now under construction in General Mills' Sperry Division, are a new flour mill and grain storage elevator at Los Angeles, Cal. The grain elevator will provide storage for 600,000 bushels of wheat and will reportedly be the first all steel, all open-headhouse type, fire-proof, dust-proof, and explosion-proof elevator in the United States.

CANADA RAISES ELEVATION CHARGES

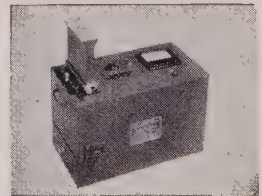
The Board of Grain Commissioners of Canada advanced the price of elevation charges ¼ cent per bushel effective Oct. 1 at terminal elevators. Wheat, corn, oats and barley rates were upped to 1½ cents; flax advanced to 2 cents per bushel. Rates on mixed grain and screenings remained unchanged. All grain shipped from terminal elevators in railroad cars is subject to an additional elevation charge of ¼ cent per bushel.

\$800,000 FIRE DAMAGE

The Moore Milling Co., Salem, Va., estimates its loss by fire at nearly \$800,000, a loss only partially covered by insurance. The fire and water damaged much of the new machinery as well as used machinery and quantities of grains.

EASY TO MAKE

Moisture Tests



with a

Steinlite

No technical education is needed to operate the electronic Steinlite. The main things to be done are (1) turn on a switch, (2) weigh a small sample, (3) pour sample into hopper, (4) read a dial, (5) get percentage of moisture by comparing dial reading with chart. These operations are done very quickly. Numerous users report making a test in one minute.

Steinlite is accurate and reliable . . . calibrated against official oven methods. Tests moisture content of wide variety of products—whole grain, mixed feeds, meal, nuts, etc. Sold on free trial basis. No money down. Write for circular.

726 Converse Building Chicago 6, Illinois

SEEDBURO
EQUIPMENT COMPANY

A QUARTER OF A CENTURY SERVING THE MILLING TRADE

Distributors of Crocker-Wheeler Motors, Square D Control, Worthington Pumps and Air Compressors, International Diesel Engines, Lovejoy Couplings, Weston Meters, Line Material Company's Transformers and line builders' supplies, as well as many other products. Dust Tight equipment in stock for immediate shipment. Motors and Control for rent in emergency.

PORTER ELECTRIC CO., INC.
330 So. 6th St. Minneapolis 15, Minn.
Geneva 8655

Electrical Equipment Coast to Coast

BRUSHES

That Are Made Right of Quality Materials.



Separator Brushes

We can furnish Separator Brushes for any machine.

The STAR Warehouse Push Broom

This is the broom that is used by most large terminal elevators for sweeping grain out of box cars.

Write for Prices

Brushes for Every Commercial and Industrial Use
FLOUR CITY BRUSH CO., Minneapolis 15, Minnesota

LAND GRANT COLLEGES TO HELP SAVE GRAIN

The nation's land grant colleges were enlisted in the grain saving program to spread conservation practices to individual farmers. Under the plan, the heads of land grant educational institutions were asked by Secretary Anderson and Mr. Luckman, to appoint state livestock feed committees, which would include representatives of state farm organizations, feed dealers, manufacturers and grain groups, plus the research and extension staffs of the colleges.

LAKE GRAIN SHIPMENTS

Lake shipments of grain during the first eight months totaled 189,797,836 bushels, an increase of approximately 30 million over the same months last year. The report was issued by the Lake Carriers Association.

BARLEY—\$7,125 A CAR

A car unloading 142,500 lbs. at \$2.40 per bushel was purchased by the Fleischmann Malting Co. early this month. This is believed to be the highest price ever paid for a single car of barley.

RON KENNEDY IN NEW POST

Ron H. Kennedy, secretary-treasurer of the Grain & Feed Dealers National Association, resigned from that position to assume his new duties as secretary-treasurer of the Northwest Country Elevators Association on Oct. 1. He will also serve as secretary of the Minneapolis Terminal Elevator Association.

G&FDNA APPOINTS CLARK

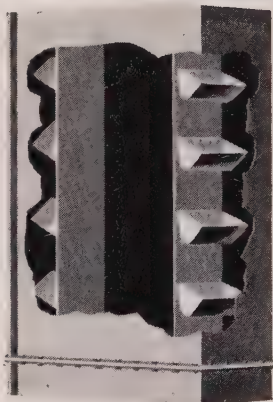
Don Clark, well known for his activities in agricultural work, has been appointed secretary of the Grain & Feed Dealers National Association. Mr. Clark's appointment was announced by F. Peavey Heffelfinger, president of the association, who said that Clark will assist in executing the program of the major organization in the nation of leading grain and feed dealers. Clark will make his home in St. Louis where the G&FDNA headquarters are located.

MILTON HART DIES

Milton S. Hart, 54, foreman at the Superior Grain Corporation pool elevator, died recently from a sudden heart attack at his home in Buffalo. Mr. Hart had been employed at the elevator for 20 years.

NEED BELTING?

**Now you can get
PROMPT shipment
on our famous
Inner-Locked Belting
FOR CONVEYING & ELEVATING**



For the first time in several years prompt shipment can be made on Imperial Beltings. Improved production methods and greater availability of raw materials make this possible.

Most types of our famous Inner-Locked Belting can now be furnished from stock in widths through 24". Larger sizes require 10 days through 5 weeks, depending on kind of belting required.

All Imperial Belting is made from the very best 37½ oz. tight-woven duck . . . with a tensile strength exceeding 700 lbs. per inch of width. The plies are double-stitched with our Inner-Locked construction which permanently prevents ply separation . . . then scientifically impregnated to obtain the exact qualities needed for each type of service.

For over 35 years leading industrials have found Imperial Belting "costs less to use."

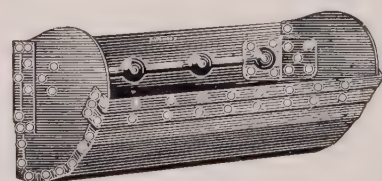
WRITE, WIRE OR PHONE FOR INFORMATION AND PRICES



**Engineered
Belting**

**THE RIGHT BELT
FOR EACH JOB**

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**THE FACT STILL REMAINS
that**

SUPERIOR ELEVATOR CUPS

**are
MADE STRONGER
will**

**LAST LONGER
have**

**GREATER CAPACITY
and will operate more efficiently
at less cost than other elevator
cups.**

"DP" - "OK" - "CC" - "V"

write to

**K. I. WILLIS CORPORATION
MOLINE, ILLINOIS**

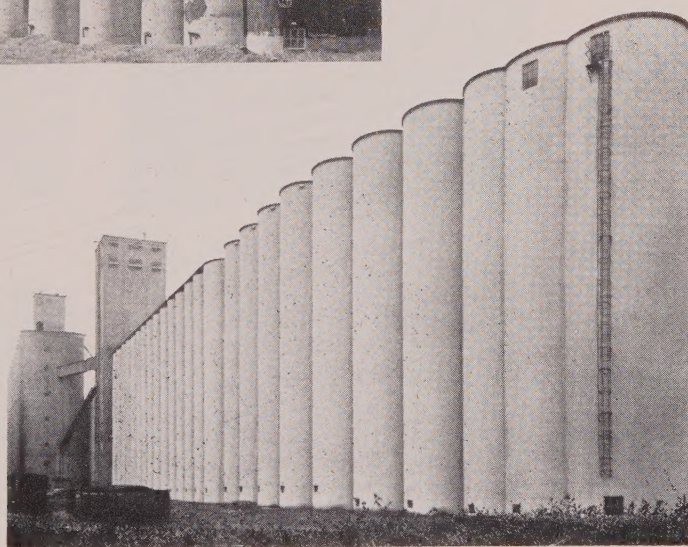
**for names of distributors
and analysis form No. 20**

Protecting America's Grain... **by Repairing and Waterproofing** **GRAIN ELEVATOR CONSTRUCTION**



BEFORE

Shows job before our treatment. Random repairs like those shown had no practical value. We began with basic repairs.



COMPLETED

Here you see the decorative and light reflecting finish. Under this is our pliable type of waterproofing.



Complete Contract Service . . . HORN tested materials . . .
 HORN skilled mechanics . . . HORN expert supervision . . .
 HORN guarantee. List of references upon request.

ESTABLISHED 1897



50th ANNIVERSARY

CONTRACTING DIVISION

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 1836 EUCLID AVENUE, CLEVELAND 15, OHIO

SUBSIDIARY OF



CHEMICAL
 CORPORATION

HERE IT IS —————→

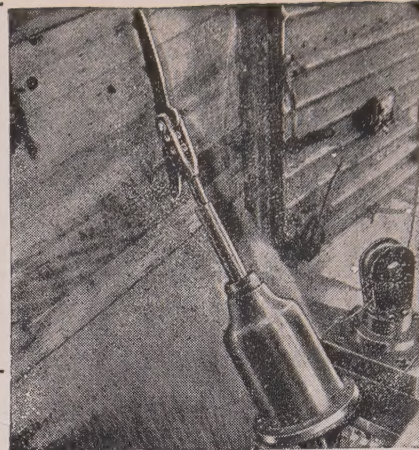
A ONE OPERATION GRAIN DOOR OPENER

THE MACHINE YOU'VE BEEN WAITING FOR—

ELIMINATES { BARS
BROKEN DOORS
STRAIN } SAVES { TIME
TEMPERS
MONEY }

DARDEN-POOL COMPANY

1st and Hascall Sts.,
OMAHA, NEBRASKA



STEPHENS-ADAMSON PROMOTES OSTBERG

Stephens-Adamson Manufacturing Co., conveyor and ball-bearing manufacturer of Aurora, Ill., announced the promotion of A. W. Ostberg, formerly Purchasing Agent to be Assistant Manager of the Merchandise Division. Mr. Ostberg will be in charge of the coordination of sales and production of the S-A line of standard box car loaders, car pullers, winches, and speed reducers. E. K. Race was named Purchasing Agent.

MOISTURE METER

Bulletin No. 1242, issued by the C. J. Tagliabue Division, Portable Products Co., Brooklyn 5, N. Y., describes the TAG-Heppenstall Moisture Meter use in determining the moisture content all grains.

AIR-ENTRAINING AGENTS

Air Entraining Agents are new discoveries in the cement field. Three to five per cent of air trapped in the concrete in the form of tiny bubbles will maintain flexural strength with age, improve scaling resistance, and in general will protect the concrete against its most common causes of failure. The A. C. Horn Co., Inc., Long Island City 1, N. Y., has been manufacturing AYR-TRAP for this purpose. Write for details.

UNITIZING GLUER

Large bags of flour and similar products shipped in paper bags are now assured of safe shipment through the use of the new "Crowe Unitizing Gluer." This utility machine has recently been placed on the market by its inventors and manufacturers, The Crowe Engineering Co., (Carthage), Cincinnati 16, Ohio.



The "Crowe Unitizing Gluer" places a strip of glue along the edges of each bag in the process of loading. The glue holds the bags together securely in cars or on pallet during shipment, so that they arrive at their destination in undamaged condition. In this way, with the bags glued to each other, the entire carload or pallet takes up any shipping movement. Each package bears only its own weight, and breakage and damage are limited to a minimum.

AL MARSH OPENS ENGINEERING FIRM

Albert M. Marsh, well known engineer, formerly with Allis-Chalmers Manufacturing Co., announces the formation of A. M. Marsh, Inc., 622 N. Water St., Milwaukee, Wis. The new engineering corporation will specialize in the interests of flour mills, feed plants, breakfast food plants, and all other plants using milling equipment.

ELLIOTT L-B DIVISIONAL HEAD

James B. Elliott has been appointed divisional sales manager at the Link-Belt plant in Minneapolis. Mr. Elliott has been with Link-Belt since 1925 and formerly was divisional manager of the Chicago Caldwell plant products.

GEARSHIFT DRIVE

The Lima Electric Motor Co., 7069 Findlay Road, Lima, Ohio, announces the availability of their 4 speed, Type R, Lima Gearshift Drive, with its integrally mounted single phase motor set up for single phase operations of machinery requiring selective speeds in the range of ½ hp and ¾ hp. The Lima Gearshift Drive is available to conform with Class 2, Group G, specifications.

NEED INFORMATION?

MACHINERY? EQUIPMENT? SUPPLIES? SERVICE?

"GRAIN"—BOARD OF TRADE—CHICAGO 4, ILLINOIS

Please see that information on _____

is sent to me. NAME _____





Weevil-Cide SPLITTERS

NONCOMMITTAL

The reporter was getting information for the death notice of a local banker. "And can you tell me what his last words were?" asked the reporter.

"He had no last words," was the reply. "You'd better just say his dear wife was with him to the end."

* * *

NEWS ITEM

From a newspaper article on a storm: "The bolt of lightning tore her clothing from her body and shocked three persons working nearby."

* * *

BUSINESS-LIKE ATMOSPHERE

The lawyer had just hung up his shingle and was awaiting his first client. A stranger entered the office. The lawyer asked to be excused a moment, picked up the phone importantly and said, "Tell Mr. Gates I will be a little late for our conference."

Hanging up the receiver he turned smilingly to the stranger and said, "Now, sir, what can I do for you?"

"Nothing," replied the man. "I'm just here to connect your phone."

* * *

WET BLANKET

"Patrick, my man, I'm not long for this world. I want you to promise me one thing."

"That I will, Bridget. What is it?"

"I want you to have my mother in your carriage at the funeral."

"I've given my word, Bridget. And I'll do it. But I'll tell you, it will spoil the day for me."

SITUATION WANTED

Secretarial position: some experience as stenographer and file clerk; no bad habits; willing to learn.

* * *

SEASON'S GREETINGS

The church was crowded on Easter Sunday. The pastor, recalling many Sundays with the pews two-thirds empty, announced in a level tone: "I realize that there are many here who will not be with us again until next Easter time. I take this opportunity of wishing them a Merry Christmas."

* * *

PRACTICALLY

He: "Are you free for this weekend, darling?"

She: "Well, not exactly free—but very inexpensive."

* * *

LATE NOTIFICATION

Minister (preaching on forgiveness of sins): "And remember, my friends, the greater the sinner, the greater the saint."

Spinster (to herself): "Humph! It's a pity someone didn't tell me that thirty years ago."

* * *

SUITORS

Gertie: "Hi ya, Madge? How's yer boy friend?"

Madge: "Not bad. Say, who was that guy I saw you outwit last night?"

* * *

IT'S A DIZZY WORLD

"Did you hear the news about three inmates escaping out at the Insane Asylum?"

"No! What happened?"

"Well, the searching party went out and brought back eight guys all told."

* * *

HANDICAPPED

"Did you have a good time the other night, Gladys?"

"Naw, I've got too much will power."

* * *

THE IMPORTANT THING

Two Irishmen who had not seen each other for a long time met on the street. Said O'Brien, "Sure, it's married I am, and I have a fine healthy boy which the neighbors say is the very picture of me."

Replied Malone, "Och, well, what's the harm of that so long as the child is healthy?"

* * *

NOT RESPONSIBLE

A small boy presented a rather dirty and well-worn volume at the return desk of the public library. The librarian glanced at the book and then leaned forward to take in the size of the boy. "This is rather technical, isn't it?" she asked.

Planting his feet firmly on the floor, the small boy, half defiant, half apologetic, said, "It was that way when I got it."

* * *

A LITTLE EARLY

Mrs.: "That new couple next door seem very devoted. He kisses her every time they meet. Why don't you do that?"

Mr.: "I don't know her well enough yet."

* * *

VOTING DISCRETION

"What party do you affiliate with?" asked the election judge.

"Do I have to answer that?"

"You do if you want a ballot."

"Then I don't want one—because the party I affiliate with ain't divorced yet."

* * *

HIS ONLY MISTAKE

"Has there ever been a romance in your life?"

"Well, there was a beautiful school teacher. Boy, was she ever lovely! Once she asked me to stay after school."

"Did you do anything wrong?"

"Yes, I didn't stay."



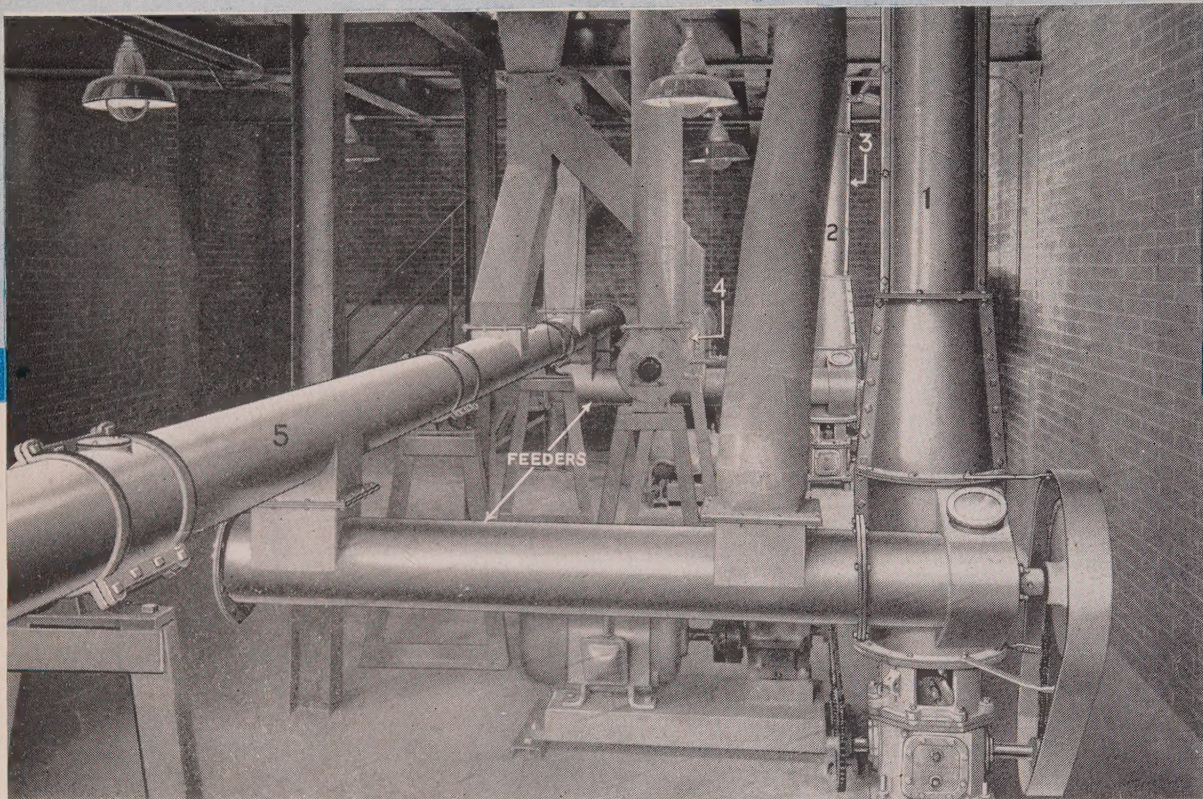
THE **Weevil-Cide** COMPANY
THE DEPENDABLE GRAIN FUMIGANT

1110 HICKORY STREET
KANSAS CITY, MO.

How "HAMMOND" Screw-Lift.

PATENTED AND TRADE MARK REG. U. S. PAT. OFF.

*solved a difficult elevating problem for
Barton Distilling Company, Bardstown, Kentucky*



All elevating and conveying in the new mill building of Barton Distilling Company is handled by "Hammond" Screw-Lifts and Screw-Veyors. Photo shows spouting coming down from Hammernills, located on floor above, feeding meal to two horizontal 9" Screw-Veyors (Figs. 4 and 5) which distribute it to three 9" Type "D" Screw-Lifts (Figs. 1-2-3). Meal is then elevated approximately 60 feet to another horizontal Screw-Veyor which carries it to the respective meal storage bins.

THE "HAMMOND" SCREW-LIFT elevates free-flowing bulk materials to any practical height. Its construction is patented, the result of many years of research to perfect a simple and efficient means of elevating materials that are difficult to handle.

There is no possibility of choking, no deflection, no noise. Everything is enclosed — Dust-tight — Moisture-proof — Safe — Sanitary — Compact — Accessible.

Standard units available for capacities of 75, 300, 1000 or 2500 cu. ft. per hour. Drives to suit conditions.

Write for Form M-500-2 illustrating available types which we may arrange to suit your conditions, and supply quotations.



Screw Conveyor Corporation

707 HOFFMAN ST.

HAMMOND, IND.

ENGINEERS

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TRADE MARK REG.



U.S. PAT. OFFICE

Type "C" Screw-Lift with bottom drive. Five other types available.

